ENVIRONMENTAL ASSESSMENT

EA No. ID-220-2007-EA-3573

Stone Mountain Quarries Inc. / Charcoal Quarry

Serial/Project No.: IDI-35887 Field Office: Burley Preparation Date: May 2008

BUREAU OF LAND MANAGEMENT
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1.0 INTRODUCTION

The Bureau of Land Management (BLM) Burley Field Office is considering approval of a Mining Plan submitted by Stone Mountain Quarries Inc. (Stone Mountain) to quarry "Oakley Stone," a micaceous quartzite that is used for decorative surfaces and exterior fascia on buildings and other structures by the construction industry (Proposed Action). Uses for Oakley Stone include poolside non-slip surfaces, footpaths, exterior building veneer and other exterior applications. The proposed quarrying project would be located on public lands within Cassia County, Idaho. Stone Mountain is proposing to quarry, split, and transport Oakley Stone from an open-pit quarry located within a 10-acre area on Middle Mountain near the town of Oakley (Project Area). External scoping and/or public involvement have not been completed as part of the process in the preparation of this Environmental Assessment (EA).

The project area is generally situated in southern Idaho in unincorporated Cassia County roughly 5 miles south of Oakley and 11 miles north of the Utah-Idaho border (Figure 1). Access to and from the proposed open-pit quarry is achieved through privately held lands and through BLM managed lands (Figure 2). Stone Mountain has established agreements for access with private land owners. The BLM-Burley Field Office administers the public lands in which quarrying operations take place.

Oakley Stone is a mineral resource in which rock qualities, such as foliation, layering, coloring, and strength, give the stone an intrinsic value as a construction material. Adding to its value as a construction material is the ability to split Oakley Stone in a relatively controlled manner. A common variety determination of Oakley Stone was performed in 2002 and was found to be locatable within the Project Area. Small amounts of the stone were initially quarried under the Notice of Intent (NOI) to address economic considerations and to provide information for the common variety determination. Now that Oakley Stone has been determined to be locatable within the Project Area, and a commercial demand exists for this mineral resource, a Plan of Operations has been submitted to quarry the stone commercially

1.1 Purpose and Need

In recent years the commercial and residential building industry has incorporated more and more natural materials in construction. The use of slates, marbles, granites, flagstones, and other building stones and quarried materials is growing nationwide and worldwide. The need for the Proposed Action arises from the national and international demand by the construction industry for Oakley Stone. As a result of this demand, the BLM-Burley Field Office has received an application to quarry Oakley Stone on public lands. Middle Mountain is one of three known areas where Oakley Stone occurs near the surface of Middle Mountain in areas accessible for quarrying. Middle Mountain is also accessible via existing roads. While there are existing quarries on Middle Mountain that are presently removing Oakley Stone, there is a commercial demand in the marketplace for additional sources of Oakley Stone. The purpose of the Proposed Action is to facilitate quarrying of Oakley Stone within the Project Area to meet the current and anticipated future demands of the marketplace while minimizing direct and cumulative impacts to the environment.

1.2 Conformance with Applicable Land Use Plans

The Proposed Action is consistent with the Geology, Energy, and Minerals Management guidelines of the 1985 Cassia Resource Management Plan (RMP). The RMP states:

> *"The BLM will manage geological, energy and minerals resources on public lands. Geological resources will be managed so that significant scientific, recreational and educational values will*

be maintained or enhanced. Generally, the public lands are available for exploration and development, subject to applicable regulations and Federal and State law."

The Proposed Action is also consistent with the Resource Management Objectives of the Management Area 4-Middle Mountain Area Plan, specifically with respect to:

"Facilitate the orderly development of the building (Oakley) stone resource."

Furthermore, the Proposed Action is consistent with the Required Actions of the Management Area 4-Middle Mountain Area Plan that the Middle Mountain area is *"open to mining, mineral leasing, and sale,"* and limits wheeled vehicles to existing roads and trails.

The Proposed Action is consistent with Federal, State and local laws.

1.3 Relationship to Statutes, Regulations or Other Plans

This Environmental Assessment (EA) has been prepared for compliance with the National Environmental Policy Act of 1969 (NEPA). The EA analyzes the potential environmental effects that may be associated with proposed quarrying activities detailed in a Mining Plan submitted to the BLM. The EA will also assist the BLM, in determining whether an Environmental Impact Statement (EIS) would need to be prepared or if a finding of no significant impact (FONSI) is appropriate.

The project area is within the boundaries of the Cassia RMP, administered by the Burley Field Office of the BLM. The project area is not within or near Research Natural Areas (RNAs) or Areas of Critical Environmental Concern (ACECs) as identified in the RMP. This document has been prepared in order to ensure that the Proposed Action would occur in a manner consistent with the RMP.

1.4 Potentially Impacted Resources

In accordance with NEPA, BLM staff evaluated the list of "Critical Elements of the Human Environment," along with "Other Important Elements of the Human Environment" at a meeting in September 2007. The list of Critical and Other Important Elements are contained in Table 1 in Section 3.1 of this EA. All elements were fully reviewed and evaluated.

A combination of scoping meetings and field research of the Project Area characteristics led to a determination that 13 of the elements are potentially impacted by the Proposed Action. These elements are identified as:

1. Air Quality;
2. Cultural Resources;
3. Environmental Justice;
4. Invasive, Non-native Species;
5. Migratory Birds;
6. Threatened, Endangered and/or Sensitive Animals;
7. Availability of Access / Need to Reserve Access;
8. Wildlife;
9. Existing and Potential Land Uses;
10. Vegetation Type, Communities; Vegetative Permits and Sales Rangeland Resources;
11. Soils;

12. Economic and Social Values;
13. Mineral Resources.

2.0 PROPOSED ACTION AND ALTERNATIVES

The BLM-Burley Field Office is considering approval of a mining plan for the Middle Mountain Claim No.1 submitted by Stone Mountain related to quarrying Oakley Stone in the Middle Mountain area roughly 5 miles south of the town of Oakley. A decision to approve or deny the Plan of Operations would be made by the BLM-Burley Field Office. A description of the Proposed Action is summarized in this section, as well as a No Action Alternative.

2.1 Proposed Action

A rock quarry operation is proposed wherein Oakley Stone, a micaceous quartzite, would be mined from open pits. An estimated 3,000 tons of stone would be extracted annually from the project area from a depth of roughly 50 feet in benches of 10 feet. Oakley Stone would be hauled into the town of Oakley where it would be split and palletized. It is estimated that about 50 percent of the stone mined from the quarry would be salable, and that the quarry could operate between the months of May to October for approximately 4 years until December 2012.

The mining operation would use heavy equipment including one excavator to extract stone from an open pit, dump trucks to haul stone away from the quarry, and a front-end loader to assist in loading the dump trucks. The top layer of soil would be scraped away and stored in a stockpile area. Another area would be used to store overburden. Workers would not dwell on site, and no buildings would be constructed on site. Additional details of the proposed mining operation are found in the Mining and Reclamation Plan.

2.1.1 Overview & Location of Proposed Action

The Proponent of the Proposed Action is Stone Mountain Quarries Inc. (Stone Mountain) located at:

63 Pelican Drive
Rupert, Idaho 83350

The Project Area is a 10-acre parcel of land located in southern Idaho in unincorporated Cassia County, defined as the N1/2 of SE1/4 of SE1/4 of NE 1/4 and S1/2 of NE 1/4 of SE 1/4 of NE 1/4 of Section 34, Township 14 South, Range 22 East (Figure 3).

2.1.2 Schedule of Proposed Action Activities

Stone Mountain proposes to initiate activities on July 15, 2008 and would complete activities, including reclamation work, by December 2012. In addition to obtaining the approval of the BLM-Burley Field Office for the Plan of Operations, Stone Mountain would acquire applicable State and local permits and authorizations necessary to support the Proposed Action.

2.1.3 Access Roads

Access would be achieved by traveling in an easterly direction on Warm Springs Road, a county maintained, two-lane dirt road, from an intersection on Goose Creek Road located roughly 3.5 miles south of Oakley. After roughly 1 mile of easterly travel on flat terrain, a veer in the road leads southeasterly

onto a one-lane, private dirt road that climbs roughly 650 feet in elevation, while winding and traversing across the base of Middle Mountain a distance of roughly 3/4 mile to the neighboring Sawtooth Stone quarry. From there, a temporary access road would travel northeasterly through the 10.6 acre Sawtooth Stone quarry, a distance of roughly 1/3-mile to the project area. Subsequently, a roughly 1/2-mile new access road would be constructed from the west edge of Sawtooth Stone quarry, northward and then eastward, around the 10.6 acre Sawtooth Stone quarry to the project area (Appendix A).

All access roads would be improved and maintained in accordance with established standards. Drainage systems would be installed as necessary to protect property and ensure adequate road drainage (such as drainage dips, water bars, ditches, road crossings and culverts) in accordance with the established standards. Stone Mountain will be responsible for reclaiming the new access road at the conclusion of mining.

2.1.4 Right-of-Way

Stone Mountain has entered into a "Mining Lease Agreement" with individuals who had previously secured an access easement with the underlying property owner. No additional right-of-way is required for either roads or electrical transmission lines.

2.1.5 Plan of Operation Mitigation

BLM-Burley Field Office approval of the Plan of Operations would incorporate the following conditions:

- Activities that would involve disturbance to the flora would be limited to the time frame between July 1 and February 28 as a mitigative measure to prevent impacts to BLM sensitive birds and other migratory birds that may nest and/or forage within the project area. In the event that flora-disturbing activities cannot be avoided during this time frame, a biological clearance survey would be performed to determine whether nesting BLM sensitive and/or migratory birds are present. If the survey identifies active bird nests that would be impacted, the proposed flora-disturbing activities would be postponed until the breeding and fledging season has past.

- In the unlikely event that human remains or any previously unidentified cultural, historical, or archaeological resource or vertebrate paleontological resources are discovered during quarrying activities, Stone Mountain would immediately cease all activities within 200 feet of the discovery, ensure that the discovery is properly protected, and immediately notify the BLM. Work would not resume until the discovery is evaluated by the BLM and the BLM issues notification that quarrying operations can proceed.

- Land disturbance associated with the Proposed Action would create conditions conducive to infestation of non-native invasive noxious weeds. No noxious weeds were noted at the project area. Scotch thistle (*Onopordum acanthium*) is known to occur in the vicinity; however, it is not known to occur in the project area. Noxious weeds would be treated a minimum of once per year or as often as necessary to control them. For Scotch thistle, herbicides should be applied in the summer months between the rosette and pre-bud stages. Other noxious weeds, if found would also be treated with herbicides, or as otherwise suggested by the State of Idaho Department of Agriculture. Only herbicides approved for use on public lands would be used in a manner consistent with standard operating procedures found in Appendix B of the September 29, 2007, Record of Decision (ROD) related to "Vegetation Treatments Using Herbicides on BLM Lands in the 17 Western States."

- Stone Mountain agrees to reclaim the project area in accordance with the Mining and Reclamation Plan.

2.2 Description of Alternatives

In addition to the proposed action, this EA considers only the No Action Alternative in detail. One alternative was briefly considered but eliminated from detailed study. Oakley Stone is known to occur on the Sawtooth National Forest approximately 7 miles from the project area. However, the mining proponent does not have the claims needed to operate at the site on the Sawtooth National Forest. A common variety mineral determination has not been completed at the site and it is not known if mining that site would be commercially feasible. Finally, there is no plan of operation proposed at that site.

2.2.1 No-Action Alternative

Under the No Action Alternative, the Plan of Operations submitted by Stone Mountain Quarry would not be approved and mining operations would not take place in the project area. The No Action Alternative is used as the baseline for comparison of environmental effects.

3.0 AFFECTED ENVIRONMENT

The project area is a 10-acre parcel of land located in unincorporated Cassia County, Idaho. The legal description of the project area is defined as the N1/2 of SE1/4 of SE1/4 of NE 1/4 and S1/2 of NE 1/4 of SE 1/4 of NE 1/4 of Section 34, Township 14 South, Range 22 East. The project area is situated at the north end of Middle Mountain near the point where topography transitions from Middle Mountain to the bordering flat Snake River Valley Plateau region. The project area is accessed via an existing access road that departs Warm Springs Road and approaches the project area from the northwest. The project area is composed primarily of steep to moderately steep hillsides with some flat areas. Small gulleys and draws traverse the project area directing runoff water toward the north. Existing disturbance includes a faint dirt road and a small test area where soil has been scraped from the surface of the earth in order to ascertain the types of underlying rocks. There are no seeps, springs, or other surface water at the project area. The predominant vegetation at the project area consists of naturally occurring grasses, big sage (*Artemisia tridentata),* rabbit brush (*Chrysothamnus nauseosus*), plains prickly pear cactus (*Opuntia polyacantha*), pincushion cactus (*Pediocactus simpsonii*), western salsify (*Tragopogon dubius*), and Utah serviceberry (*Amelanchier utahensis*).

The area surrounding the project area is predominantly agricultural with small-scale mining operations. Irrigation water for the portion of the Snake River Valley north of the project area is provided by Goose Creek Reservoir, which is situated roughly 4 miles west of the project area. The project area is accessed via dirt roads that connect to the city of Oakley, located roughly 5 miles to the north. The project area is located at the northern portion of Middle Mountain, a more-or-less north-south trending mountain surrounded by flat valleys to the north, east, and west, and a continuing ridge-line to the south.

Cassia County encompasses a land area of 2,566 square miles and possesses a population of roughly 22,000 residents. The economy of Cassia County is driven by agriculture, mining, and manufacturing. Well known businesses in Cassia County include Ore-Ida Foods now known as McCain's. This business was built in the 1960s and processes French fries and hash browns. Boise Cascade Corporation in Burley is a manufacturer of cardboard boxes and other materials. Simplot Industries was originally based in Cassia County. Cassia County is one of the leading agricultural counties in the state and nation and is known for production of beef cattle, dairy cattle, sheep, potatoes, sugar beets, beans, and cereal crops.

Approximately 82 percent of total economical sales in the county are from agricultural production and about 78 percent of direct or indirect employment is tied to agriculture. Cache Peak, with an elevation of 10,339 feet, is the highest Peak in Cassia County. Cache Peak is located in the Albion Mountains in the Sawtooth National Forest, roughly 11 miles east of the subject property. Cassia County is bordered by Jerome and Minidoka counties to the north, Twin Falls County to the west, Power and Oneida counties to the east, and the state of Utah to the south.

Photographic documentation of the Project Area is included as Appendix B.

3.1 Critical Elements of the Human Environment

Critical Elements of the Human Environment are identified in Table 1. Critical Elements that may be affected by the Proposed Action are described in this section of the EA. Critical Elements that are not present in the Project Area or likely to be affected by the Proposed Action are not considered or discussed in this EA (see Table 1).

Table 1
Critical Elements of the Human Environment

The following elements of the human environment are subject to requirements specified in treaty, statute, regulation, or executive order and must be considered in all environmental assessments. All the following elements have been analyzed. However, elements denoted by an "X" are *not affected* by the proposed action or alternatives and will receive no further consideration.	
____ Air Quality	__X__ Threatened/Endangered Plants; Sensitive Plants
__X__ Areas of Critical Environmental Concern	__X__ Threatened/Endangered Fish; Sensitive Fish
____ Cultural Resources	____ Threatened/Endangered Animals; Sensitive Animals
____ Environmental Justice (EO 12898) (minority and low-income populations)	__X__ Wastes, Hazardous or Solid
__X__ Farm Lands (prime or unique)	__X__ Water Quality – Surface & Ground
__X__ Floodplains	__X__ Wetlands/Riparian Zones (including uplands)
____ Invasive, Non-native Species	__X__ Wilderness
____ Migratory Birds	__X__ Wild & Scenic Rivers
__X__ Native American Religious Concerns	__X__ Tribal Treaty Rights

Other Important Elements of the Human Environment The elements of the environment listed below are not included on the "critical elements" list, but are important to consider in assessing all impacts of the proposal(s). All the following elements have been analyzed. However, elements denoted by an "X" are *not affected* by the proposed action or alternatives and will receive no further consideration.	
__X__ Paleontological Resources	__X__ Fisheries
__X__ Indian Trust Resources	__X__ Forest Resources
____ Availability of Access/Need to Reserve Access	_____Soils
____ Wildlife	__X__ Wild Horse and Burro Designated Herd Management Areas
__X__ Recreation Use, Existing and Potential	__X__ Visual Resources
____ Existing and Potential Land Uses	____ Economic & Social Values
____ Vegetation types, communities; vegetative permits and sales; Rangeland resources	____ Mineral Resources

3.2 Existing Conditions

The Proposed Action may affect 13 critical and other important elements of the human environment. The existing conditions of these 13 elements are discussed below.

3.2.1 Air Quality

Under the Clean Air Act (as amended, 1977), and in accordance with the RMP, BLM administered lands, including the project area, are designated as Class II air quality classifications. This classification allows moderate deterioration associated with moderate well controlled industrial and population growth. The project area is not located in or adjacent to any mandatory Class I (most restrictive) federal air quality areas, US Fish and Wildlife Service (USFWS) Class I air quality units, or American Indian Class I air quality lands.

The air quality of the project area is typical of undeveloped expanses of the Basin and Range Physiographic Province. Although air quality is generally assumed to be good, winds and storms generate airborne dust, and local and regional wildfires produce smoke that can create haze that tends to be localized and short-lived. Dust is generated by pickup trucks and other vehicles traveling on Goose Creek Road, Warm Springs Road, and other dirt access roads in the area. Dust is generated by vehicles traveling to and from rock quarries on Middle Mountain, and from heavy equipment and rock quarrying activities such as removal and stacking of stone.

3.2.2 Cultural Resources

A survey for cultural resources has been completed. There are no known Cultural Resources within the Project Area.

3.2.3 Environmental Justice

The project area is located in the southern portion of Cassia County. Demographically, there are 21,577 residents. The national origin of residents in Cassia County is 84.7 percent White, 0.2 percent Black or African American, 0.8 percent Native American, 0.4 percent Asian. Persons from Latino or Hispanic origin make up 18.7 percent of the total population. The median income for a household in Cassia County is $32,175. Of the total population, 15.4 percent of individuals were identified as living below the poverty line (Cassia County 2007).

3.2.4 Invasive Non-native Species

During a field inspection of the project area, no non-native invasive noxious weeds, as defined by the State of Idaho Department of Agriculture, were identified.

3.2.5 Migratory Birds

Habitat at the project area consists of sagebrush, grasses, and low growing shrubs. A seep is located roughly 2,000 feet southwest of the project area that provides a water source, thereby somewhat enhancing the value of habitat for migratory birds. A number of migratory songbirds and raptors could utilize the project area for nesting, foraging, and as a flyover area and resting point along a migratory route. The rock wren (*Salpinctes obsoletus)* and American goldfinch (*Carduelis tristis)* are migratory birds, protected under the Migratory Bird Treaty Act (MBTA), that were noted near the project area.

3.2.6 Threatened/Endangered Animals; Sensitive Animals

Species lists were obtained from the BLM, United States Fish and Wildlife Service (USFWS), and State of Idaho Department of Fish and Game (IDFG) that identified federally protected, state protected, and BLM Sensitive wildlife that are potentially present at the project area. A biologically focused survey of the project area was then conducted and impacts to these species from the Proposed Action were evaluated. The Draft Biological Evaluation (BE), wherein an analysis of special status species was conducted, is attached to this EA as Appendix B.

Sagebrush dominated habitat at the project area is consistent with the requirements of three special status birds, Brewer's sparrow (*Spizella breweri)*, sage sparrow (*Amphispiza belli*), and greater sage-grouse (*Centrocercus urophasianus)*. Suitable nesting habitat is present for all three of these birds.

Three BLM special status birds, the loggerhead shrike *(Lanius ludovicianus)*, prairie falcon (*Falco mexicanus*), and Ferruginous hawk *(Buteo regalis)* could use the project area for foraging, as a flyover area, or as a resting area along a migration route. However, suitable nesting habitat for these species is not present.

It is unlikely that other threatened, endangered or sensitive animals would be impacted by the Proposed Action. Supporting documentation is found in the Biological Evaluation in the administrative record.

3.2.7 Availability of Access / Need to Reserve Access

Access to the project area would be achieved by traveling in an easterly direction on Warm Springs Road, a county maintained, two-lane dirt road, from an intersection on Goose Creek Road located roughly 3.5 miles south of Oakley. After roughly 1 mile of easterly travel on flat terrain, a veer in the road leads southeasterly onto a one-lane private dirt road that climbs roughly 650 feet in elevation, while winding and traversing across the base of Middle Mountain a distance of roughly 3/4 mile before arriving at BLM land.

The project area is located on public lands administered by the BLM, which abut private land. Stone Mountain has entered into an access easement with the underlying property owner. The access easement agreement allows a road easement for the transport of stone, quarry equipment, and other related activity to and from the project area.

3.2.8 Wildlife

Managed wildlife species were not observed at the project area. The project area offers quality foraging and winter habitat, and marginal fawning grounds for both mule deer *(Odocoileus hemionus)* and pronghorn antelope (*Antilocapra Americana)*. Both of these species may browse while moving between the various mountain ranges in the area. Because pronghorn antelope tend to prefer flatter topography, the project area is likely more conducive to mule deer use.

3.2.9 Existing and Potential Land Uses

Present human impacts to the project area are limited to a faint dirt access road and a small test area where surface soil has been scraped away and a subsurface investigation occurred that assessed whether it

was feasible to quarry Oakley Stone. This disturbed area is roughly 1/4 acre in size. The project area is presently used for cattle grazing.

3.2.10 Vegetation Types, Communities, Vegetative Permits and Sales; Rangeland Resources

The predominant vegetation consists of grasses, big sage, rabbit brush, plains prickly pear cactus, pincushion cactus, western salsify, and Utah serviceberry. None of the sensitive plant species identified by the BLM as potentially present in the surrounding area are known to occur in the project area.

3.2.11 Soils

Soils within the 10-acre project area are comprised of 4 acres of Mackey-Rock Outcrop, 3 acres of Vipont Very Stony Loam, and 3 acres of Alpowa Cobbly Loam. Information on these soil types was derived from the 1981 Soil Survey of Cassia County (USDA, Soil Conservation Service et al.).

Mackey-Rock Outcrop:

The Mackey soil is moderately deep and well drained and formed in alluvium and colluvium derived from intermediate and basic igneous rocks. In a typical profile the surface layer is light brownish gray very stony sandy loam 4 inches thick. The subsoil is light yellowish brown very stony clay loam and very stony loam 8 inches thick. The underlying layer is pale brown very stony sandy loam and very stony loamy sand to a depth of 32 inches. Permeability is moderately rapid. Surface runoff is rapid, and the hazard of erosion is high. The hazard of soil blowing is slight.

Vipont Very Stony Loam

This is a moderately deep, well drained soil on South-facing mountainsides. This soil formed in material recently decomposed from mixed parent rock. Permeability is moderate. Surface runoff is rapid, and the hazard of erosion is high. The hazard of soil blowing is slight.

Alpowa Cobbly Loam

The Alpowa series consists of deep and very deep, well drained soils formed in loess and colluvium and slope alluvium from basalt on lower canyon walls, and loess and basaltic alluvium on alluvial fans, hills and plateaus. Alpowa soils formed in slope alluvium, colluvium, and alluvium from basalt and loess. Summers are warm and dry and winters are cool and moist. Permeability is moderate. Surface runoff is slow to rapid.

3.2.12 Economic and Social Values

The BLM administers the majority of land in the project area on Middle Mountain. BLM administers lands for a variety of uses including amenity, commodity, non-commodity, and recreation. Multiple use management in the project area has included outdoor recreation, range management, mineral resource development, and wildlife and watershed protection. The project area is roughly 5 miles from the town of Oakley.

According to the Idaho Department of Labor, Cassia County Workforce Trends (2008), Cassia County has experienced limited growth. Most jobs in Cassia County related to agriculture; trade, utilities, and

transportation; educational and health services; and government. Mining accounts for 179 jobs out of a 2006 average employment of 9,193(IDOL 2008).

3.2.13 Mineral Resources

The Middle Mountain area is known for production of micaceous quartzite near several other active stone quarries. The project area is conducive to quarrying operations because stone is located near the surface and the area is easily accessed via Goose Creek Road, near the town of Oakley, Idaho.

4.0 ENVIRONMENTAL CONSEQUENCES

This section describes the expected environmental impacts of the Proposed Action. In addition, a no action alternative (No Action Alternative) is considered. The potential impacts of these actions are evaluated below with respect to the 13 identified affected elements of the human environment.

4.1 Air Quality

Proposed Action: The Proposed Action would result in an increase in vehicular traffic along Goose Creek Road, a dirt road between the project area and the town of Oakley. In addition, the Proposed Action requires that a roughly 1-3/4-mile segment of existing dirt roads on Warm Springs Road and another private dirt road be traveled upon for access to the Project Area. Quarrying activities would involve scraping the surface of the earth to remove top soil to access the subsurface stone. Other quarrying activities would involve the use of heavy equipment such as an excavator, dump trucks, and a front-end loader. On average, two trips per day (4 one way trips) along existing dirt roads would occur as a result of quarrying operations. Local ranchers and farmers occasionally spray Goose Creek Road with Magnesium Chloride in order to control fugitive dust. This quarrying operation is expected to last for roughly 4 years.

Quarrying operations would cause a small deterioration in air quality from fugitive dust. In Class II areas, some deterioration of air quality is acceptable. Because the level of air quality deterioration is expected to be small, the proposed quarry operations would be consistent with air quality standards. Stone Mountain would comply with Idaho Department of Environmental Quality regulations for fugitive dust.

The cumulative effect upon air quality is that a slight increase in fugitive dust would be generated from vehicles on dirt roads and quarrying activities associated with the Proposed Action, and another proposed quarrying operation on Middle Mountain. This additional amount of fugitive dust would combine with existing dust from neighboring quarries and other vehicles traveling on dirt roads in the area of Middle Mountain. After roughly 4 years of production, the Stone Mountain quarrying operation is expected to be completed and would no longer contribute fugitive dust in the area.

No Action: Existing sources of fugitive dust near the project area would continue. Dust control measures such as occasional spraying of magnesium chloride on Goose Creek Road would continue. Existing rock quarries and mining activities would continue to generate fugitive dust. In addition, vehicular traffic on Goose Creek Road and other dirt roads would continue to generate fugitive dust. Implementation of the No Action Alternative would not generate any fugitive dust because the rock quarry operation would not be approved. This alternative would be consistent with air quality standards.

4.2 Cultural Resources

Proposed Action: A Class III intensive pedestrian survey of the Area of Potential Effect (APE) was conducted by a permitted archaeologist in accordance with the State Protocol Agreement between BLM and the State Historic Preservation Office. No historic or cultural properties were identified in the Cultural Resource Inventory Report (ID220-08-03; see also Appendix C); thus, there will be no effect to known historic or cultural properties eligible or potentially eligible for listing on the National Register of Historic Places (NRHP, Criteria A-D; see also 36 CFR 60.4), as a result of this undertaking. Should there be any future or inadvertent historic or cultural property discoveries made during project implementation; there will be an immediate cessation of project activities and the Burley Field Manager and Archaeologist will be contacted for further investigation (see also 36 CFR 800.11 and SPA). In the event that American Indian human remains, unassociated funerary objects, or grave goods are encountered, work in the immediate vicinity of the discovery will cease, and BLM shall comply with applicable State laws and/or the Native American Graves Protection and Repatriation Act (NAGPRA) as outlined in 43 CFR 10. In consultation with the SHPO, BLM shall select the appropriate mitigation option before quarry operations resume.

There are no anticipated cumulative impacts to cultural resources because there are no known cultural resources in the APE associated with the proposed quarry operation.

No Action: This alternative will have no effect to historic or cultural properties eligible or potentially eligible for listing on the National Register of Historic Places because the proposed stone quarry operation would not be approved and because there are no known sites in the project area.

4.3 Environmental Justice

Proposed Action: The Proposed Action would employ contractors to operate heavy equipment and to haul Oakley Stone off-site. Workers would be drawn from the local and regional population. Quarrying operations, including transportation of Oakley Stone, would not have any disproportionate effect on minority or low-income populations. The Proposed Action would provide a few, new jobs to the local economy for a period of about 4 years.

There would be no cumulative impacts with respect to effects on minority or low income populations because the Proposed Action is not expected to cause disproportionate effects to these groups.

No Action: The No Action Alternative would not create any new jobs or employ workers from the local or regional population. This alternative would not cause a disproportionately effect on minority or low-income populations.

4.4 Invasive Non-native Species

Proposed Action: The proposed action would remove vegetation and disturb soil, creating conditions conducive to the introduction and spread of non-native, invasive weeds. There are no known noxious weeds in the project area. To reduce the risk of introduction and spread of noxious weeds, the area will be monitored for non-native, invasive weeds on the State Noxious Weed List. If any new infestations are discovered, these infestations would be treated with herbicides or as otherwise suggested by the State Department of Agriculture. Only herbicides approved for use on public lands would be used in a manner consistent with operating procedures found in Appendix B of the September

29, 2007, Record of Decision (ROD) related to "Vegetation Treatments Using Herbicides on BLM Lands in the 17 Western States."

The Proposed Action would also construct an access road to the project area. This access road would be less than 1 mile long. Roads are known to be vectors for spread of non-native, invasive species. Use of this access road would be limited based on the access agreement with the private landowner. Limited use of the access road would lessen the likelihood of new infestations of non-native, invasive weeds.

Cumulatively, the Proposed Action could enable noxious weeds to further intrude into the Middle Mountain area by creating access road and other disturbed areas where native vegetation is removed, thereby providing an opportunity for invasion of noxious weeds into disturbed areas. Seeds from these noxious weeds could be spread to neighboring areas by vectors such as wind and birds. Use of herbicides may reduce the cumulative impact of noxious weeds by inhibiting their spread into the surrounding area. Therefore herbicides should be used at the Project Area.

No Action: The project area would not be disturbed by mining operations. Existing areas of disturbed soils would continue to be susceptible to invasion by noxious weeds. Implementation of the No Action Alternative would not contribute to the introduction or spread of noxious weeds into the surrounding area because new disturbed areas would not be created.

4.5 Migratory Birds

Proposed Action: A biologically focused survey of the project area revealed that suitable nesting habitat is present for several migratory birds. The proposed operations would remove roughly 10 acres of vegetation. The rock wren and American goldfinch are non-special status migratory birds that were noted near, but not within, the project area. It is likely that other migratory birds including raptors visit the project area. Impacts to sagebrush during the breeding season could result in failed reproductive attempts for migratory birds that could use the project area for nesting. In order to reduce the potential impacts to migratory birds that nest in the project area, a biological clearance survey would be completed prior to quarry operations that remove sagebrush or existing rock piles during the breeding season (March 1 - June 30). If surveys during the breeding season reveal nesting migratory birds, disturbance to nesting areas would be postponed until after June 30. If surveys do not reveal nesting migratory birds, the operations would be allowed to proceed. Biological clearance surveys are not needed between July 1 and February 28.

Noise from mining operations associated with the use of heavy equipment is expected to inhibit migratory bird use (nesting and foraging) of the area in close proximity to the operations.

Disturbed areas would be reseeded at the end of the quarry life; reclamation activities are expected to occur by December 2012. Areas that are reclaimed would be seeded with crested wheatgrass. After reclamation activities are complete, roughly 10 acres would be converted from sage brush to crested wheatgrass.

Cumulatively, the quarrying of Oakley Stone in the project area, along with other quarrying operations in the Middle Mountain area could inhibit migratory bird nesting and foraging activities. Existing quarrying operations have resulted in removal of native vegetation, including sagebrush, from roughly 140 acres. The proposed quarry operation would remove an additional 10 acres of native vegetation. A separate proposed quarry operation on Middle Mountain would remove an estimated 11 acres of native vegetation. Noise and vegetation removal associated with these quarrying operations have reduced the suitability of

nesting and foraging habitat for migratory birds in the vicinity of quarry operations. Based upon a review of aerial photography, it is estimated that roughly 95 percent of Middle Mountain is undisturbed by quarrying, access roads, and other human disturbances. The Middle Mountain area would continue to provide habitat for migratory birds.

No Action: The existing native vegetation found in the project area would not be disturbed and would continue to provide suitable nesting and foraging habitat for migratory birds. There would be no disturbance as a result of the proposed quarry operations. Habitat would continue to be affected by other quarry operations on Middle Mountain. The No Action Alternative would not impact migratory birds because the Project Area, associated vegetation, forage, and potential nest sites would not be disturbed.

4.6 Threatened, Endangered, and Sensitive Animals

Proposed Action: The Brewer's sparrow, sage sparrow, and greater sage-grouse are BLM sensitive birds that utilize sagebrush for nesting habitat. The sagebrush-dominated habitat at the project area is considered suitable for nesting for these species. Brewer's sparrows were observed at the project area. The sage sparrow and greater sage-grouse were not observed, but could utilize the project area. The nearest water source is at a seep roughly 2000 feet from the project area. This nearby water source enhances the value of habitat for these species.

The proposed quarry operation would remove roughly 10 acres of vegetation, including sagebrush. Removing and/or disturbing sagebrush during the breeding season could result in failed reproductive attempts for these three special status birds. As a result, biological clearance surveys during the breeding season would be used to reduce the likelihood of disturbing these special status species (Brewer's sparrow, sage sparrow, and greater sage-grouse) as well as any other migratory birds that could utilize the project area as nesting habitat. Biological clearance surveys would be completed prior to quarry operations involving removing and/or disturbing sagebrush during the breeding season (March 1 – June 30). In the event that the biological clearance survey reveals nesting Brewer's sparrow, sage sparrow, or greater sage-grouse, disturbance to the sagebrush should be postponed until the non-breeding season. A biological clearance survey is not required for operations that occur outside the breeding season (July 1 – February 28).

The loggerhead shrike, prairie falcon, and Ferruginous hawk are BLM sensitive species that could use the project area for foraging. However, habitat characteristics at the project area do not match the typical nesting requirements for these species; therefore, these species are not expected to use the project area for nesting. Use of the project area is likely limited to an occasional flyover, foraging site, or resting point along a migration route. The quarry operation would result in removal of roughly 10 acres of foraging habitat for these species.

With the exception of the species identified above, the Proposed Action would not have an effect upon federally threatened and endangered species, or other special status species that are potentially present in the surrounding area. Supporting documentation is found in the Biological Evaluation the administrative record.

Areas disturbed by quarry operations would be reclaimed at the end of the quarry life. Reclamation is expected to occur by December 2012. Disturbed areas would be reseeded using crested wheatgrass. It is expected that sagebrush habitat would be replaced by grasslands.

Cumulative impacts to sensitive species involve the removal of roughly 10 acres of habitat on Middle Mountain. Based upon a review of aerial photography, it is estimated that roughly 140 acres of native vegetation has been removed and displaced by quarrying activities on the western base flank of Middle Mountain. A separate proposed quarry operation on Middle Mountain would remove an estimated 11 acres of native vegetation. The proposed action, along with existing and proposed quarrying operations, would result in removal of an estimated 160 acres of sagebrush habitat. Based upon a review of aerial photography, it is estimated that more than 95 percent of Middle Mountain is undisturbed by quarrying, access roads, and other human disturbances. The Middle Mountain area would continue to provide habitat for these sensitive species.

No Action: The existing native vegetation found in the project area would not be disturbed and would continue to provide nesting and foraging habitat for Brewer's sparrow, sage sparrow, and greater sage-grouse. There would be no disturbance as a result of the proposed quarry operations during the breeding season or at other times of the year. Habitat would continue to be affected by other quarry operations on Middle Mountain.

4.7 Availability of Access / Need to Reserve Access

Proposed Action: The amount of access to public lands in the vicinity of Middle Mountain would not likely be altered. Even though Stone Mountain would construct a new access road on public lands, use would be limited because the existing road crosses private land. Members of the public will not be permitted on this private road without permission from the private landowner.

Stone Mountain has obtained the needed agreements to access the project area. Stone Mountain would construct a new access road. This access road would be maintained in accordance with BLM standards and will be reclaimed by Stone Mountain at the conclusion of mining. Drainage systems would be installed as necessary to ensure adequate road drainage (such as drainage dips, ditches, road crossings, and culverts) in accordance with the established standards.

Cumulatively, the new access road would not add to public access in the Middle Mountain area even though it will add to the overall amount of roads on Middle Mountain.

No Action: The amount of access to public lands in the vicinity of Middle Mountain would not be altered. The No Action Alternative would not result in impacts in terms of availability of access and need to reserve access.

4.8 Wildlife

Proposed Action: Managed wildlife species were not observed at the project area; however, the project area offers quality foraging and winter habitat and marginal fawning grounds for both mule deer and pronghorn antelope. Both of these species may pass through the project area and browse while moving between the various mountain ranges in the area. The noise, equipment, and human presence associated with quarry operations and road use could displace both mule deer and pronghorn antelope and these species may avoid the quarry area. Clearing vegetation associated with quarry operations would remove roughly 3acres of potential forage for these species. Quarry operations would shut down in October each year and would not resume until the following May for approximately 4 years. Because quarry operations are shut down during the winter months, quarry operations are not expected to affect winter use of the area.

Cumulatively, habitat on the western flank of Middle Mountain is becoming fragmented due to the number of quarry operations. Adding this quarry along with another proposed quarrying operation may cause mule deer and pronghorn antelope to alter their migratory behavior patterns. Aerial photography indicates that more than 95 percent of Middle Mountain is still undeveloped.

No Action: The existing quarry operations would continue to operate, even though the proposed Sawtooth quarrying operation would not be approved. The existing levels of disturbance from quarrying operations and road use in the Middle Mountain area would continue to affect mule deer and pronghorn antelope use of the area. These species are expected to continue to avoid these areas.

4.9 Existing and Potential Land Uses

Proposed Action: The Proposed Action would not change the existing levels of livestock use in the project area. Existing human disturbance in the form of quarrying activities at the west edge of the project area presently affects about 1/4 acre. The Proposed Action would increase the level of human disturbance and would convert about 10 acres of vegetation into a stone quarry operation. Removing 10 acres of vegetation would cause a slight reduction in the amount of forage produced; however, the change would be so slight that no modification would be made to the grazing permit. Public lands would continue to be available to existing and potential land uses.

Cumulatively, roughly 140 acres of native vegetation on the western flank of Middle Mountain has been removed and displaced by quarrying activities. The proposed action would result in removing roughly 10 acres of vegetation. Considering the current quarrying operations, the Stone Mountain quarry operation, and another proposed quarry operation on Middle Mountain, about 160 acres of land would no longer produce forage until these lands have been reclaimed when quarrying operations are complete. Based on a review of aerial photography, approximately 95 percent of the land area on Middle Mountain is still undeveloped and would continue to be available to other lands uses, including livestock grazing.

No Action: Livestock grazing in the project area would continue and the existing levels of livestock use would not change. Public lands would continue to be available to existing and potential land uses. Quarrying operations in the 10-acre project area would not be approved; however, existing quarrying operations on Middle Mountain would continue.

4.10 Vegetation Types, Communities; Vegetative Permits and Sales; Rangeland Resources

Proposed Action: This mining project would remove roughly 10 acres of sagebrush-dominated vegetation within the 10-acre Project Area. It is estimated that vegetation removal would occur over a 5-year period. Quarry operations would occur for an estimated 4-5 years. When quarrying operations are complete, the disturbed area would be reclaimed by re-spreading the topsoil that has been stockpiled and seeding the area with crested wheatgrass as described in the Mining and Reclamation Plan. Sagebrush habitat would be replaced by grasslands on roughly 10 acres.

Cumulatively, roughly 140 acres of native vegetation on the western flank of Middle Mountain has been removed and displaced by quarrying activities. The proposed action would result in removal of roughly 10 acres of sagebrush dominated vegetation. Another proposed quarrying operation would remove an estimated 11 acres of sagebrush dominated vegetation. In total, 160 acres of vegetation on Middle Mountain would be removed and displaced by quarrying activities. Based on an analysis using aerial photograph, more than 95 percent of the Middle Mountain area is still undeveloped.

No Action: The existing vegetation would continue to be dominated by sagebrush.

4.11 Soils

Proposed Action: The proposed quarrying operations would result in compacting and displacing soils. Topsoil would be scraped off and stockpiled for use in future reclamation efforts. A roughly 1/3-acre area near the northeast corner of the Project Area would be used to store topsoil. A separate area would be used to store overburden. Where topsoil is removed, the area would become an active quarrying operation. Soils would be compacted where the access road would be constructed. The quarry operation would encompass up to 10 acres. Soil would be removed from this area in order to expose and mine the subsurface stone. In total, soils would be removed or compacted on roughly 10acres. There may be a slight loss of soils due to erosion. To reduce the potential for erosion from runoff, drainage systems would be installed as necessary to ensure adequate road drainage (such as drainage dips, water bars, ditches, road crossings and culverts) in accordance with the established standards. The soil types found in the project area are not susceptible to wind erosion; therefore, soil loss from wind erosion is not expected.

Cumulatively, this project combined with existing and proposed quarrying operations in the Middle Mountain area are expected to result in roughly 160 acres of soil compaction and displacement.

No Action: The No Action Alternative would not result in removal or compaction of soils because the stone quarry would not be approved. Existing levels of compaction and displacement as a result of past quarrying and exploration activities in the project area would continue to exist.

4.13 Economic and Social Values

Proposed Action: The quarry operation is expected to employ workers from local communities including residents of the town of Oakley. Mining is a small portion of employment in Cassia County. This quarrying operation would add a small number of jobs in the County. Wages paid to employees would help local businesses because wages would be spent on items such as food, gasoline, and other goods. Stone Mountain is a locally run business operating from Rupert, Idaho.

Cumulatively, this quarry operation would add a small level of employment to Cassia County. Employment income in Cassia County would continue to be dominated by the agricultural, trade/utilities/transportation, education/health, and government sectors (IDOL 2008).

No Action: The No Action Alternative would not contribute to the economic and social values of Cassia County. No new jobs would be created.

4.14 Mineral Resources

Proposed Action: This alternative would result in removal of Oakley Stone from an open pit quarry. An estimated 3,000 tons per year would be removed between 2008 and 2012. Once these mineral resources are removed, they cannot be replaced.

Cumulatively, this quarry along with the other existing and proposed quarries on Middle Mountain would remove Oakley Stone.

No Action: The Oakley Stone deposits in the project area would not be removed and would be retained on site.

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